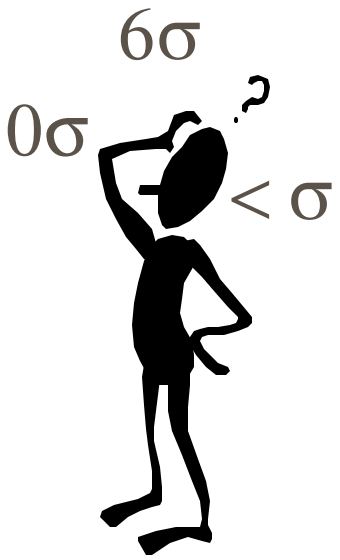
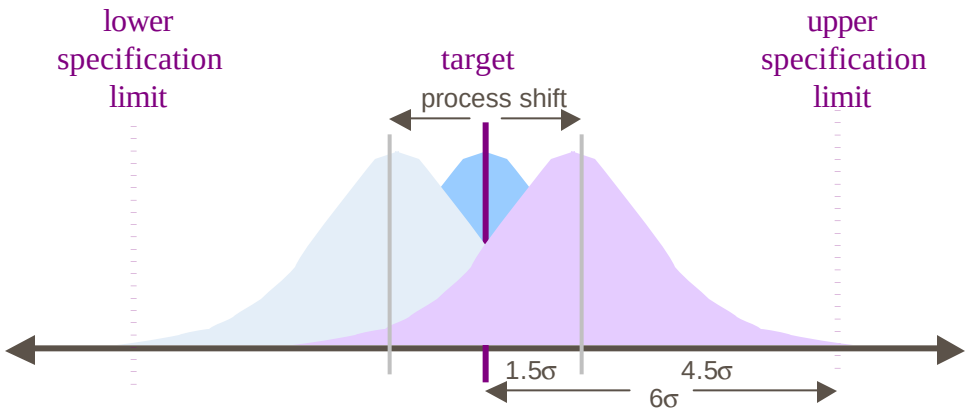
The name: Six Sigma

- Where did the term Six Sigma come from?
  - Six Sigma utilizes the symbol σ as a metric.
  - Assumes normality.
  - σ is sort of a z-score.
  - Controversial!!!





- It is assumed a relatively centered process will incur a 1.5 standard deviation drift over time. This has not been substantiated!

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The name, continued: Six Sigma

- Six Sigma assumes the specification range will contain +/- 6σ in the short-term, with the mean never getting closer than 4.5σ from the nearest specification.

6s = 6.0 z-score – 1.5 z-score
z-score of 4.5 = ~0.0000034
6s = ~3.4 parts per million defective

Sigma	Yield	PPMO*	
6	99.9997%	3.4	World Class Benchmarks
5	99.976%	233	
4	99.4%	6,210	Industry Average
3	93%	66,807	
2	65%	308,537	Non-Competitive
1	50%	500,000	

* Parts per million opportunity (PPMO)

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